



275.00080101.ST25.txt
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Ala Lys Phe Val Arg Cys Ala Tyr Val Ile Ile Leu Met Ala Ile Tyr
 35 40 45

Trp Cys Thr Glu Val Ile Pro Leu Ala Val Thr Ser Leu Met Pro Val
 50 55 60

Leu Leu Phe Pro Leu Phe Gln Ile Leu Asp Ser Arg Gln Val Cys Val
 65 70 75 80

Gln Tyr Met Lys Asp Thr Asn Met Leu Phe Leu Gly Gly Leu Ile Val
 85 90 95

Ala Val Ala Val Glu Arg Trp Asn Leu His Lys Arg Ile Ala Leu Arg
 100 105 110

Thr Leu Leu Trp Val Gly Ala Lys Pro Ala Arg Leu Met Leu Gly Phe
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Met Gly Val Thr Ala Leu Leu Ser Met Trp Ile Ser Asn Thr Ala Thr
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275.00080101.ST25.txt

Thr Ala Met Met Val Pro Ile Val Glu Ala Ile Leu Gln Gln Met Glu
145 150 155 160

Ala Thr Ser Ala Ala Thr Glu Ala Gly Leu Glu Leu Val Asp Lys Gly
165 170 175

Lys Ala Lys Glu Leu Pro Gly Ser Gln Val Ile Phe Glu Gly Pro Thr
180 185 190

Leu Gly Gln Gln Glu Asp Gln Glu Arg Lys Arg Leu Cys Lys Ala Met
195 200 205

Thr Leu Cys Ile Cys Tyr Ala Ala Ser Ile Gly Gly Thr Ala Thr Leu
210 215 220

Thr Gly Thr Gly Pro Asn Val Val Leu Leu Gly Gln Met Asn Glu Leu
225 230 235 240

Phe Pro Asp Ser Lys Asp Leu Val Asn Phe Ala Ser Trp Phe Ala Phe
245 250 255

Ala Phe Pro Asn Met Leu Val Met Leu Leu Phe Ala Trp Leu Trp Leu
260 265 270

Gln Phe Val Tyr Met Arg Phe Asn Phe Lys Lys Ser Trp Gly Cys Gly
275 280 285

Leu Glu Ser Lys Lys Asn Glu Lys Ala Ala Leu Lys Val Leu Gln Glu
290 295 300

Glu Tyr Arg Lys Leu Gly Pro Leu Ser Phe Ala Glu Ile Asn Val Leu
305 310 315 320

Ile Cys Phe Phe Leu Leu Val Ile Leu Trp Phe Ser Arg Asp Pro Gly
325 330 335

Phe Met Pro Gly Trp Leu Thr Val Ala Trp Val Glu Gly Glu Thr Lys
340 345 350

Tyr Val Ser Asp Ala Thr Val Ala Ile Phe Val Ala Thr Leu Leu Phe
355 360 365

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Glu Glu Arg Lys Thr Pro Phe Tyr Pro Pro Pro Leu Leu Asp Trp Lys
Page 12

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<212> DNA
<213> C. elegans NaCT

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gagtacagat gtcttttctc aataatatct ttatcaacct attggattgg agaagcattt      180
cccatagggtg tcacttctct ctttccattg gcactttatc caattcttca gattgttcca      240
tctaaacaaa ttagtccagt ttatttttaa gattcgatag ttctatttat gtgcacatta      300

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275.00080101.ST25.txt

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Leu Gly Pro Leu Val Ala Val Pro Leu Leu Phe Phe Gly Pro Glu Tyr
Page 14

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Arg Cys Leu Phe Ser Ile Ile Phe Leu Ser Thr Tyr Trp Ile Gly Glu
35 40 45

Ala Phe Pro Ile Gly Val Thr Ser Leu Phe Pro Leu Ala Leu Tyr Pro
50 55 60

Ile Leu Gln Ile Val Pro Ser Lys Gln Ile Ser Pro Val Tyr Phe Lys
65 70 75 80

Asp Ser Ile Val Leu Phe Met Cys Thr Leu Ser Met Ala Met Ala Val
85 90 95

Glu Ala Thr Gly Leu His Arg Arg Ile Ala Leu Lys Leu Leu Thr Lys
100 105 110

Val Gly Ala Lys Gln Pro Val Met Leu Leu Gly Phe Met Cys Ile Thr
115 120 125

Ser Phe Ile Ser Phe Phe Val Ser Asp Thr Ala Cys Thr Ala Leu Met
130 135 140

Cys Pro Thr Ala Val Ala Leu Leu Met Ser Met Ser Asp Ala Val Gln
145 150 155 160

His Leu Lys Glu Asp His Arg Lys Pro Lys Pro Pro Pro Asp Asp Ala
165 170 175

Thr Val Ala Glu Lys Met Arg Ile Asp Asp Met Thr Pro Gln Asp Ala
180 185 190

Gly Phe Cys Lys Ala Leu Ile Leu Ala Cys Ala His Ala Ser Leu Ile
195 200 205

Gly Gly Thr Ala Ile Ile Thr Ser Thr Gly Pro Asn Leu Val Phe Arg
210 215 220

Glu Asn Ile His Lys Arg Tyr Pro Glu Gly Gln Val Thr Met Thr Tyr
225 230 235 240

Leu Gln Trp Met Val Phe Ala Ile Pro Pro Met Phe Val Tyr Leu Leu
245 250 255

Ala Ser Tyr Ile Ile Leu Val Cys Tyr Phe Met Gly Pro Ser Thr Phe
260 265 270

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Ala Arg Trp Phe Glu Arg Pro Ser Lys Glu Glu Ala His Leu Lys Lys
275 280 285

Leu Ile Glu Lys Asn Ile Gln Thr Met Tyr Glu Asp Leu Gly Asp Val
290 295 300

Ser Trp Gly Glu Lys Ser Val Phe Val Phe Phe Ile Leu Leu Ile Gly
305 310 315 320

Ser Trp Ile Ser Arg Asp Pro Gly Phe Thr Pro Gly Trp Gly Asp Leu
325 330 335

Leu Pro His Arg Asn Phe Ile Ser Asp Ser Val Ser Gly Val Leu Ile
340 345 350

Ser Cys Ile Leu Phe Val Trp Pro Lys Asp Pro Phe Asp Pro Ile Asp
355 360 365

Pro Met Ala Pro Ile Leu Lys Trp Thr Asp Met Lys Ser Lys Phe Ser
370 375 380

Trp Ser Cys Thr Leu Leu Ile Gly Ala Gly Tyr Ala Ile Ser Glu Gly
385 390 395 400

Val Asp Lys Ser Gly Leu Ser Arg Leu Ile Ser Cys Gly Met Lys Asn
405 410 415

Ile Phe Val Gly Met Ser Ser Leu Pro Leu Gln Leu Thr Val Thr Thr
420 425 430

Ile Ile Val Ile Met Thr Glu Phe Ala Ser Asn Val Ser Thr Gly Ser
435 440 445

Ile Phe Ile Pro Ile Ser Leu Gly Val Ala Glu Ser Met Gly Val His
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Pro Leu Tyr Leu Ala Leu Pro Thr Thr Val Ala Cys Ser Phe Ala Phe
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Met Leu Pro Ile Ser Thr Pro Pro Asn Ala Val Val Tyr Asp Thr Lys
485 490 495

Val Ile Ser Met Val Glu Met Ile Val Cys Gly Phe Leu Leu Asn Ile
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Ala Cys Ile Leu Ile Thr Ser Leu Asn Met Asn Thr Trp Thr Tyr Phe
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Asn Ser Ser Tyr Pro Val Cys
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Asp Lys Phe Ala Arg Cys Ala Tyr Val Ile Val Ile Met Ala Val Tyr
35 40 45

Trp Cys Thr Asp Val Ile Pro Val Ala Val Thr Ser Leu Leu Pro Val
50 55 60

Leu Leu Phe Pro Leu Leu Lys Val Leu Asp Ser Lys Gln Val Cys Ile
65 70 75 80

Gln Tyr Met Lys Asp Thr Asn Met Leu Phe Leu Gly Ser Leu Ile Val
85 90 95

Ala Val Ala Val Glu Arg Trp Lys Leu His Lys Arg Val Ala Leu Arg
100 105 110

Met Leu Leu Phe Val Gly Thr Lys Pro Ser Arg Leu Met Leu Gly Phe
115 120 125

Met Phe Val Thr Ala Phe Leu Ser Met Trp Ile Ser Asn Thr Ala Ala
130 135 140

Thr Ala Met Met Ile Pro Ile Val Glu Ala Met Leu Gln Gln Met Ile
145 150 155 160

Ala Ala Asn Thr Ala Val Glu Ala Ser Leu Gly Thr Leu Glu Leu Leu
165 170 175

Asp Lys Asn Lys Thr Ser Glu Leu Pro Gly Ser Gln Val Val Phe Glu

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Asp Pro Asn Val Gln Glu Gln Glu Asp Glu Glu Thr Lys Asn Met Tyr
195 200 205

Lys Ala Met His Leu Cys Val Cys Tyr Ser Ala Ser Ile Gly Gly Thr
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Ala Thr Leu Thr Gly Thr Gly Pro Asn Val Val Leu Leu Gly Gln Met
225 230 235 240

Gln Glu Leu Phe Pro Asp Ser Lys Asp Val Leu Asn Tyr Ala Ser Trp
245 250 255

Phe Gly Phe Ala Phe Pro Asn Met Val Met Met Leu Val Leu Ala Trp
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Leu Trp Leu Gln Cys Leu Tyr Met Arg His Asn Leu Lys Lys Thr Cys
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Ile Cys Cys Gly Glu Lys Lys Arg Asp Thr Glu Lys Ile Ala Tyr Lys
290 295 300

Val Leu Asn Glu Glu Tyr Gln Lys Leu Gly Ser Leu Ser Tyr Pro Glu
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Cys Asn Val Leu Phe Cys Phe Thr Leu Leu Val Ile Leu Trp Phe Ser
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Arg Asp Pro Gly Phe Met Pro Gly Trp Leu Ser Phe Ala Trp Val Glu
340 345 350

Gly Asn Thr Val His Ile Thr Asp Ala Thr Val Ala Ile Phe Val Ala
355 360 365

Ile Leu Leu Phe Ile Ile Pro Ser Gln Lys Pro Lys Phe Asn Phe Ser
370 375 380

Ser Gln Thr Glu Glu Glu Arg Lys Thr Pro Phe Tyr Pro Pro Ala Leu
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Leu Asp Trp Lys Val Ala Gln Glu Lys Val Pro Trp Asp Ile Val Leu
405 410 415

Leu Leu Gly Gly Gly Phe Ala Met Ala Lys Gly Cys Glu Thr Ser Gly
420 425 430

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Leu Ser Lys Trp Met Ala Ala Gln Met Glu Pro Leu Arg Leu Val Lys
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Pro Ala Val Ile Thr Leu Ile Leu Ser Cys Leu Val Ala Met Thr Thr
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Glu Cys Thr Ser Asn Val Ala Thr Thr Thr Leu Phe Leu Pro Ile Phe
465 470 475 480

Ala Ser Met Ala Arg Ser Ile Gly Ile His Pro Leu Tyr Val Met Ile
485 490 495

Pro Cys Thr Met Ser Ala Ser Leu Ala Phe Met Leu Pro Val Ala Thr
500 505 510

Pro Pro Asn Ala Ile Val Phe Ala Tyr Gly His Leu Arg Val Val Asp
515 520 525

Met Met Lys Thr Gly Leu Ile Met Asn Phe Val Gly Ile Leu Ser Val
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<400> 12

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Gly Ser Lys Glu Ala Gly Cys Ala Tyr Val Val Val Leu Met Ala Val
 35 40 45

Tyr Trp Cys Thr Glu Val Leu Pro Leu Ala Val Thr Ala Leu Leu Pro
 50 55 60

Ala Val Leu Phe Pro Leu Phe Arg Ile Met Glu Ser Gln Asp Val Cys
 65 70 75 80

Met Gln Tyr Leu Lys Asp Thr Asn Met Leu Phe Leu Gly Gly Leu Met
 85 90 95

Val Ala Val Ala Val Glu His Trp Asn Leu His Lys Arg Ile Ala Leu
 100 105 110

Arg Val Leu Leu Leu Val Gly Val Arg Pro Ala Leu Leu Met Leu Gly
 115 120 125

Phe Met Gly Val Thr Ala Phe Leu Ser Met Trp Ile Ser Asn Thr Ala
 130 135 140

Thr Thr Ala Met Met Val Pro Ile Val Gln Ala Val Leu Glu Gln Leu
 145 150 155 160

Asn Asn Thr Ala Gln Gln Glu Gln Ser Ser Ile Pro Glu Thr Glu Glu
 165 170 175

Lys Ser Thr Glu Lys Gln Pro Glu Ser Pro Gly Glu Glu Lys Val Val
 180 185 190

Leu Asn Gly Asp Asn Phe Ser Met Glu Ser Asp Pro Glu Glu His Ser
 195 200 205

Arg Glu Ala Glu Glu Arg Leu Lys Met Ser Lys Gly Leu Thr Leu Cys
 Page 22

210

215

220

Val Cys Tyr Ala Ala Ser Ile Gly Gly Thr Ala Thr Leu Thr Gly Thr
 225 230 235 240

Gly Pro Asn Leu Val Leu Met Gly Gln Met Ser Gln Leu Phe Pro Asp
 245 250 255

Asn Pro Asp Ile Ile Asn Phe Ala Ser Trp Phe Gly Phe Ala Phe Pro
 260 265 270

Asn Met Ile Ile Met Leu Thr Leu Ala Trp Leu Trp Leu Gln Ile Val
 275 280 285

Phe Leu Gly Ile Asn Phe Lys Lys Thr Trp Gly Cys Gly Thr Val Lys
 290 295 300

Thr Glu Lys Glu Ile Ala Ala Tyr Asn Val Ile Lys Glu Glu His Arg
 305 310 315 320

Ser Leu Gly Pro Met Thr Phe Gly Glu Leu Ser Val Leu Ala Leu Phe
 325 330 335

Ile Leu Leu Val Val Leu Trp Phe Thr Arg Asp Pro Gly Phe Val Asp
 340 345 350

Gly Trp Ala Thr Arg Phe Phe Asn Ala Asp Lys Glu Phe Val Thr Asp
 355 360 365

Ala Thr Val Ala Val Phe Val Ala Ala Leu Leu Phe Val Phe Pro Ser
 370 375 380

Lys Pro Pro Arg Leu Cys Phe Trp Arg Thr Glu Ser Phe Asp Thr Val
 385 390 395 400

Pro Gln Gln Glu Ser Gly Pro Thr Pro Ala Leu Leu Thr Trp Lys Val
 405 410 415

Thr Gln Lys Lys Met Pro Trp Ser Ile Ile Leu Leu Leu Gly Gly Gly
 420 425 430

Phe Ala Leu Ala Lys Gly Ser Glu Ile Ser Gly Leu Ser Lys Trp Leu
 435 440 445

Gly Asp Gln Met Ser Pro Leu Gln Ser Ile Pro Pro Trp Ala Ile Ala
 450 455 460

275.00080101.ST25.txt

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485 490 495

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500 505 510

Ala Ser Phe Ala Phe Met Leu Pro Val Ala Thr Pro Pro Asn Ala Ile
515 520 525

Val Phe Ser Tyr Gly Tyr Leu Lys Val Ser Asp Met Ala Lys Thr Gly
530 535 540

Ile Val Met Asn Ile Ile Gly Ile Leu Ser Ile Thr Leu Ala Ile Asn
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Asn Thr Thr Asp Val
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Thr Lys Glu Ala Tyr Cys Ala Tyr Ser Ile Ile Leu Met Ala Leu Leu
35 40 45

Trp Cys Thr Glu Ala Leu Pro Leu Ala Val Thr Ala Leu Phe Pro Ile
50 55 60

Val Leu Phe Pro Leu Met Gly Ile Met Asp Ala Ser Glu Val Cys Ile
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Glu Tyr Phe Lys Asp Thr Asn Ile Leu Phe Val Gly Gly Leu Met Val
85 90 95

275.00080101.ST25.txt

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Val Leu Leu Ile Ile Gly Val Arg Pro Ala Leu Leu Leu Leu Gly Phe
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Met Leu Val Thr Ala Phe Leu Ser Met Trp Ile Ser Asn Thr Ala Thr
130 135 140

Thr Ala Met Met Val Pro Ile Gly His Ala Val Leu Glu Gln Leu Gln
145 150 155 160

Gly Ser Lys Lys Asp Val Glu Gly Gly Asn Asn Asn Pro Thr Phe Glu
165 170 175

Leu Gln Glu Glu Cys Pro Gln Lys Glu Val Thr Lys Leu Asp Asn Gly
180 185 190

Gln Pro Val Ser Ala Pro Ser Glu Pro Arg Thr Gln Lys Thr Gln Glu
195 200 205

His His Arg Phe Ser Gln Gly Leu Ser Leu Cys Ile Cys Tyr Ser Ala
210 215 220

Ser Ile Gly Gly Ile Ala Thr Leu Thr Gly Thr Thr Pro Asn Leu Val
225 230 235 240

Leu Gln Gly Gln Val Asn Ser Leu Phe Pro Gln Asn Gly Asn Val Val
245 250 255

Asn Phe Ala Ser Trp Phe Gly Phe Ala Phe Pro Thr Met Ile Ile Leu
260 265 270

Leu Leu Leu Ala Trp Leu Trp Leu Gln Val Leu Phe Leu Gly Val Asn
275 280 285

Phe Arg Lys Asn Phe Gly Phe Gly Glu Gly Glu Glu Glu Arg Lys Gln
290 295 300

Ala Ala Phe Gln Val Ile Lys Thr Gln Tyr Arg Leu Leu Gly Pro Met
305 310 315 320

Ser Phe Ala Glu Lys Thr Val Thr Val Leu Phe Val Leu Leu Val Val
325 330 335

Leu Trp Phe Thr Arg Glu Pro Gly Phe Phe Pro Gly Trp Gly Asp Thr
340 345 350

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Val Phe Ala Asn Glu Lys Gly Gln Ser Met Ala Ser Asp Gly Thr Val
355 360 365

Ala Ile Phe Ile Ser Leu Val Met Phe Ile Ile Pro Ser Lys Ile Pro
370 375 380

Gly Leu Met Gln Asp Pro Lys Lys Pro Gly Lys Leu Lys Ala Pro Pro
385 390 395 400

Ala Ile Leu Thr Trp Lys Thr Val Asn Asp Lys Met Pro Trp Asn Ile
405 410 415

Val Ile Leu Leu Gly Gly Gly Phe Ala Leu Ala Lys Gly Ser Glu Gln
420 425 430

Ser Gly Leu Ser Glu Trp Leu Gly Asp Lys Leu Thr Pro Leu Gln His
435 440 445

Ile Pro Pro Ser Ala Thr Ala Val Ile Leu Cys Leu Leu Ile Ala Ile
450 455 460

Phe Thr Glu Cys Thr Ser Asn Val Ala Thr Thr Thr Leu Phe Leu Pro
465 470 475 480

Ile Leu Ala Ser Met Ala Gln Ala Ile Cys Leu His Pro Leu Tyr Val
485 490 495

Met Leu Pro Cys Thr Leu Ala Ala Ser Leu Ala Phe Met Leu Pro Val
500 505 510

Ala Thr Pro Pro Asn Ala Ile Val Phe Ser Phe Gly Gly Leu Lys Val
515 520 525

Ser Asp Met Ala Arg Ala Gly Phe Leu Leu Asn Ile Ile Gly Val Leu
530 535 540

Ala Ile Thr Leu Ser Ile Asn Ser Trp Ser Ile Pro Ile Phe Lys Leu
545 550 555 560

Asp Thr Phe Pro Ser Trp Ala His Ser Asn Thr Ser Gln Cys Leu Leu
565 570 575

Asn Pro Ser Asn Ser Thr Val Pro Gly Gly Leu
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Ala Leu Pro Pro Lys Glu Gly Arg Cys Leu Tyr Val Ile Leu Leu Met
35 40 45

Ala Val Tyr Trp Cys Thr Glu Ala Leu Pro Leu Ser Val Thr Ala Leu
50 55 60

Leu Pro Ile Ile Leu Phe Pro Phe Met Gly Ile Leu Pro Ser Ser Lys
65 70 75 80

Val Cys Pro Gln Tyr Phe Leu Asp Thr Asn Phe Leu Phe Leu Ser Gly
85 90 95

Leu Ile Met Ala Ser Ala Ile Glu Glu Arg Asn Leu His Arg Arg Ile
100 105 110

Ala Leu Lys Val Leu Met Leu Val Gly Val Gln Pro Ala Arg Leu Ile
115 120 125

Leu Gly Met Met Val Thr Thr Ser Phe Leu Ser Met Trp Leu Ser Asn
130 135 140

Thr Ala Ser Thr Ala Met Met Leu Pro Ile Ala Ser Ala Ile Leu Lys
145 150 155 160

Ser Leu Phe Gly Gln Arg Asp Thr Arg Lys Asp Leu Pro Arg Glu Gly
165 170 175

Glu Asp Ser Thr Ala Ala Val Arg Gly Asn Gly Leu Arg Thr Val Pro
180 185 190

Thr Glu Met Gln Phe Leu Ala Ser Ser Glu Gly Gly His Ala Glu Asp
195 200 205

Val Glu Ala Pro Leu Glu Leu Pro Asp Asp Ser Lys Glu Glu Glu His
210 215 220

Arg Arg Asn Ile Trp Lys Gly Phe Leu Ile Ser Ile Pro Tyr Ser Ala
225 230 235 240

275.00080101.ST25.txt

Ser Ile Gly Gly Thr Ala Thr Leu Thr Gly Thr Ala Pro Asn Leu Ile
245 250 255

Leu Leu Gly Gln Leu Lys Ser Phe Phe Pro Gln Cys Asp Val Val Asn
260 265 270

Phe Gly Ser Trp Phe Ile Phe Ala Phe Pro Leu Met Leu Leu Phe Leu
275 280 285

Leu Val Gly Trp Leu Trp Ile Ser Phe Leu Tyr Gly Gly Met Ser Trp
290 295 300

Arg Gly Trp Arg Lys Lys Asn Ser Lys Leu Gln Asp Val Ala Glu Asp
305 310 315 320

Lys Ala Lys Ala Val Ile Gln Glu Glu Phe Gln Asn Leu Gly Pro Ile
325 330 335

Lys Phe Ala Glu Gln Ala Val Phe Ile Leu Phe Cys Leu Phe Ala Ile
340 345 350

Leu Leu Phe Ser Arg Asp Pro Lys Phe Ile Pro Gly Trp Ala Ser Leu
355 360 365

Phe Ala Pro Gly Phe Val Ser Asp Ala Val Thr Gly Val Ala Ile Val
370 375 380

Thr Ile Leu Phe Phe Phe Pro Ser Gln Lys Pro Ser Leu Lys Trp Trp
385 390 395 400

Phe Asp Phe Lys Ala Pro Asn Ser Glu Thr Glu Pro Leu Leu Ser Trp
405 410 415

Lys Lys Ala Gln Glu Thr Val Pro Trp Asn Ile Ile Leu Leu Leu Gly
420 425 430

Gly Gly Phe Ala Met Ala Lys Gly Cys Glu Glu Ser Gly Leu Ser Ala
435 440 445

Trp Ile Gly Gly Gln Leu His Pro Leu Glu His Val Pro Pro Leu Leu
450 455 460

Ala Val Leu Leu Ile Thr Val Val Ile Ala Phe Phe Thr Glu Phe Ala
465 470 475 480

Ser Asn Thr Ala Thr Ile Ile Ile Phe Leu Pro Val Leu Ala Glu Leu
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485

490

495

Ala Ile Arg Leu His Val His Pro Leu Tyr Leu Met Ile Pro Gly Thr
 500 505 510

Val Ser Cys Ser Tyr Ala Phe Met Leu Pro Val Ser Thr Pro Pro Asn
 515 520 525

Ser Ile Ala Phe Ser Thr Gly His Leu Leu Val Lys Asp Met Val Arg
 530 535 540

Thr Gly Leu Leu Met Asn Leu Met Gly Val Leu Leu Leu Ser Leu Ala
 545 550 555 560

Met Asn Thr Trp Ala Gln Ala Ile Phe Gln Leu Gly Thr Phe Pro Asp
 565 570 575

Trp Ala Asn Thr His Ala Ala Asn Val Thr Ala Leu Pro Pro Ala Leu
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Thr Asn Asn Thr Val Gln Thr Leu
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<210> 28
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29

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<220>
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 <223> serine, alanine, cysteine, theonine or proline

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 <222> (3)..(4)
 <223> Xaa can be any naturally occurring amino acid

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 <222> (9)..(9)
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<400> 29

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Val

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Leu Ser Ala Ser Phe Ala Phe Met Leu Pro Val Ala Thr Pro Pro Asn
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Ala Ile Val Phe Thr
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Ala Ile Val Phe Ala
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